

# Mineral Industry Surveys

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## MANGANESE IN MARCH 2005

On a gross-weight basis, reported consumption of manganese ore containing 35% or more manganese, exclusive of that consumed at iron and steel plants, was 24,700 metric tons (t) in March 2005, which was a 25% decrease from the revised estimate of 33,100 t for February 2005, according to the U.S. Geological Survey. This figure increases to 27,100 t when estimates for annual respondents are added on the basis of 2003 data. Corresponding industry stocks of ore at the end of the month were 145,000 t, which includes an estimate for annual respondents on the basis of 2003 data. (Data for the most recent 13 months are plotted in the graph on page 2.)

Domestic consumption of manganese ore during the first quarter of 2005 was 97,600 t, which included a revised estimate of 35,500 t for February 2005. First quarter 2005 consumption

was 2% lower than that of both the revised first quarter 2004 (99,400 t) and the revised fourth quarter 2004 (99,400 t).

Foreign trade data for March will appear in a subsequent report. The following comparisons of trade data were made on the basis of manganese content. The data for February 2005 tabulated in this report indicate that the total exports of 1,280 t increased by 15% from those of the prior month, owing to increases in silicomanganese and metal exports. Manganese imports were 69,700 t, which was an increase of 32% compared with those of January. The increase in manganese imports was based primarily on a significant increase in manganese ore imports.

### Ferroalloy Prices, manganese content

	High-carbon ferromanganese <sup>1</sup> (dollars per gross ton)	Medium-carbon ferromanganese <sup>1</sup> (cents per pound)	Silicomanganese <sup>1</sup> (cents per pound)	Manganese metal <sup>2</sup> (cents per pound)
March 3	710.00-760.00	72.00-75.00	33.00-36.00	95.00-102.00
March 10	700.00-740.00	71.00-72.00	33.00-36.00	95.00-102.00
March 17	690.00-710.00	69.00-70.00	32.50-35.50	95.00-102.00
March 24	690.00-710.00	69.00-70.00	32.50-35.50	95.00-102.00
March 31	680.00-710.00	67.00-68.00	32.00-34.00	94.00-99.00

### Ore Prices, dollars per metric ton unit, manganese content<sup>3</sup>

	44% Manganese Ore <sup>2</sup>	48% Manganese Ore <sup>2</sup>
March 3	3.30-3.60	4.20-4.50
March 10	3.30-3.60	4.20-4.50
March 17	3.30-3.60	4.20-4.50
March 24	3.30-3.60	4.20-4.50
March 31	3.30-3.60	4.20-4.50

<sup>1</sup>Source: Platts Metals Week, dealer import price.

<sup>2</sup>Source: Ryan's Notes, North American transaction price.

<sup>3</sup>To determine dollars per metric ton multiply the manganese content percentage by the price.

TABLE 1  
SELECTED U.S. FOREIGN TRADE IN MANGANESE<sup>1</sup>

(Metric tons, manganese content)<sup>2</sup>

	Imports for consumption			Exports		
	Ore and dioxide	Ferroalloy and metal	Total	Ore	Ferroalloy and metal	Total
2004:						
February	20,600	33,100	53,700	1,920	745	2,660
January-February	33,700	70,600	104,000	2,570	1,540	4,110
2005:						
January	7,650	45,000	52,600	162	955	1,120
February	40,700	29,000	69,700	111	1,170	1,280
Total	48,300	74,000	122,000	273	2,120	2,400

<sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>2</sup>As reported except as estimated for imports of manganese dioxide and manganese waste and scrap and for exports from gross weights.

Source: U.S. Census Bureau.

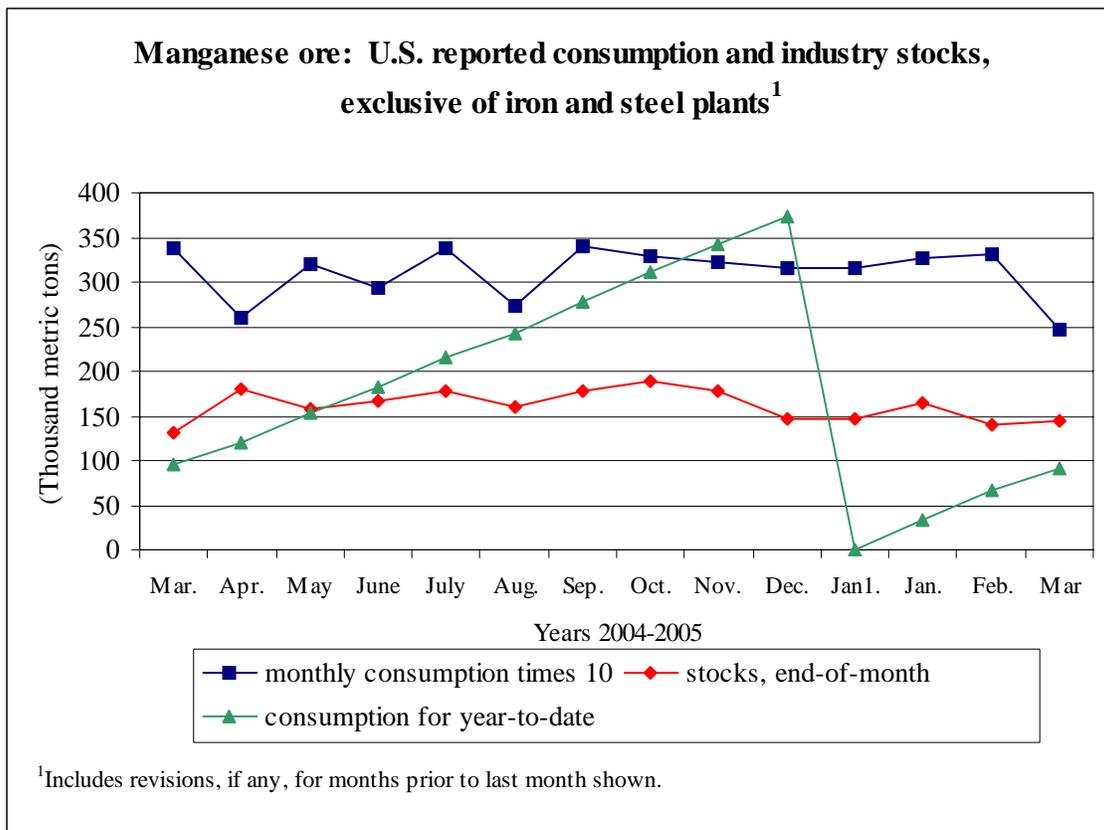


TABLE 2  
U.S. IMPORTS FOR CONSUMPTION OF SILICOMANGANESE IN FEBRUARY 2005<sup>1</sup>

(Metric tons)

Source	Gross weight	Mn content	Customs value <sup>2</sup>	Year to date		
				Gross weight	Mn content	Customs value <sup>2</sup>
Australia	--	--	--	3,010	2,010	\$3,020,000
Kazakhstan	20	13	\$17,500	20	13	17,500
Korea, Republic of	--	--	--	216	156	305,000
Mexico	1,200	875	1,000,000	2,500	1,730	1,930,000
Norway	5,390	3,570	4,940,000	8,390	5,370	8,620,000
Russia	1,530	1,040	1,110,000	11,400	7,750	9,250,000
South Africa	4,000	2,680	2,710,000	15,500	10,400	12,600,000
Total	12,100	8,180	9,780,000	41,000	27,400	35,700,000
Total, general imports	12,100	8,180	9,780,000	41,000	27,400	35,700,000

-- Zero.

<sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>2</sup>Customs value generally represents a value in the foreign country and therefore excludes U.S. import duties, freight, insurance, and other charges incurred in bringing the material into the United States.

Source: U.S. Census Bureau.

TABLE 3  
U.S. IMPORTS FOR CONSUMPTION OF FERROMANGANESE IN FEBRUARY 2005<sup>1</sup>

(Metric tons)

Source	Gross weight	Mn content	Customs value <sup>2</sup>	Year to date		
				Gross weight	Mn content	Customs value <sup>2</sup>
<b>Low carbon:</b>						
China	1,190	922	\$2,050,000	3,710	3,120	\$6,340,000
Mexico	300	241	340,000	520	419	576,000
Norway	204	167	339,000	204	167	339,000
South Africa	299	277	589,000	419	388	788,000
Total, low carbon	1,990	1,610	3,320,000	4,850	4,100	8,040,000
Total, general imports of low carbon	1,990	1,610	3,320,000	4,850	4,100	8,040,000
<b>Medium carbon, 1%-2% C:</b>						
China	--	--	--	1,850	1,450	2,600,000
Mexico	1,680	1,220	1,900,000	2,920	2,210	3,110,000
South Africa	2,150	1,750	3,000,000	6,010	4,870	8,410,000
Total, m.c., 1%-2% C	3,830	2,970	4,900,000	10,800	8,530	14,100,000
Total, general imports of m.c., 1%-2% C	3,830	2,970	4,900,000	10,800	8,530	14,100,000
<b>High carbon:</b>						
Australia	--	--	--	1,000	774	897,000
Brazil	6,210	5,020	5,630,000	6,210	5,020	5,630,000
China	--	--	--	1,500	1,150	1,620,000
France	2,600	2,030	2,000,000	2,600	2,030	2,000,000
Hong Kong	--	--	--	300	228	213,000
Mexico	513	400	471,000	763	596	705,000
South Africa	7,550	5,870	5,380,000	23,600	18,300	19,100,000
Total, high carbon	16,900	13,300	13,500,000	36,000	28,100	30,200,000
Total, general imports of high carbon	16,900	13,300	13,500,000	36,000	28,100	30,200,000
Grand total	22,700	17,900	21,700,000	51,600	40,700	52,400,000
Grand total, general imports	22,700	17,900	21,700,000	51,600	40,700	52,400,000

-- Zero.

<sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>2</sup>Customs value generally represents a value in the foreign country and therefore excludes U.S. import duties, freight, insurance, and other charges incurred in bringing the material into the United States.

Source: U.S. Census Bureau.

TABLE 4  
U.S. IMPORTS FOR CONSUMPTION OF MANGANESE ORE (20% OR MORE Mn) IN FEBRUARY 2005<sup>1,2</sup>

(Metric tons)

Source	Gross weight	Mn content	Customs value <sup>3</sup>	Year to date		
				Gross weight	Mn content	Customs value <sup>3</sup>
More than 20%, but less than 47% manganese, Mexico	--	--	--	2,910	2,150	\$320,000
47% or more manganese:						
Australia	--	--	--	8,180	4,310	1,130,000
Brazil	6,940	3,470	\$416,000	6,940	3,470	416,000
China	2,810	1,410	169,000	2,810	1,410	169,000
France	--	--	--	60	56	6,670
Gabon	66,900	33,400	4,010,000	66,900	33,400	4,010,000
Ghana	72	50	4,320	72	50	4,320
Total	76,700	38,400	4,600,000	85,000	42,700	5,740,000
Grand total	76,700	38,400	4,600,000	87,900	44,900	6,060,000

-- Zero.

<sup>1</sup>Quantities for general imports and imports for consumption are identical.

<sup>2</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>3</sup>Customs value generally represents a value in the foreign country and therefore excludes U.S. import duties, freight, insurance, and other charges incurred in bringing the material into the United States.

Source: U.S. Census Bureau.

TABLE 5  
U.S. IMPORTS FOR CONSUMPTION OF MANGANESE DIOXIDE IN FEBRUARY 2005<sup>1</sup>

(Metric tons, gross weight)

Source	Manganese dioxide			
	Quantity	Customs value <sup>2</sup>	Year to date	
Quantity			Customs value <sup>2</sup>	
Australia	3,000	\$3,930,000	3,310	\$4,340,000
Belgium	18	38,000	36	65,300
Brazil	40	19,600	58	49,500
China	405	413,000	1,930	1,960,000
Germany	24	41,600	31	73,100
Japan	382	523,000	400	553,000
Total	3,870	4,970,000	5,760	7,040,000
Total, general imports	3,870	4,970,000	5,760	7,040,000

<sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>2</sup>Customs value generally represents a value in the foreign country and therefore excludes U.S. import duties, freight, insurance, and other charges incurred in bringing the material into the United States.

Source: U.S. Census Bureau.

TABLE 6  
U.S. IMPORTS FOR CONSUMPTION OF MANGANESE METAL IN FEBRUARY 2005<sup>1</sup>

(Metric tons)

Source	Gross weight	Customs value <sup>3</sup>	Year to date	
			Gross weight	Customs value <sup>3</sup>
<b>Unwrought flake:</b>				
China	1,280	\$2,060,000	2,180	\$3,490,000
South Africa	507	849,000	1,200	1,920,000
Total	1,780	2,910,000	3,370	5,410,000
<b>Unwrought powder:</b>				
China	16	28,700	16	28,700
South Africa	351	642,000	748	1,310,000
Total	367	671,000	764	1,340,000
<b>Unwrought, other:</b>				
China	40	81,500	60	122,000
Germany	208	420,000	386	804,000
Spain	301	698,000	675	1,520,000
South Africa	160	319,000	437	793,000
Total	709	1,520,000	1,560	3,240,000
<b>Other manganese, wrought:</b>				
China	1	12,000	21	41,600
France	3	37,000	6	61,200
Germany	--	--	4	42,300
Spain	--	--	37	77,600
United Kingdom	--	--	(2)	7,070
Total	4	48,900	68	230,000
Grand total	2,860	5,150,000	5,760	10,200,000

-- Zero.

<sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>2</sup>Less than 1/2 unit.

<sup>3</sup>Customs value generally represents a value in the foreign country and therefore excludes U.S. import duties, freight, insurance, and other charges incurred in bringing the material into the United States.

Note: Imports for consumption of metallic manganese waste and scrap totaled 81 tons, nearly all of which was from Canada and less than 1 ton was from Germany, to give a year-to-date total of 158 tons.

Source: U.S. Census Bureau.

TABLE 7  
 U.S. EXPORTS OF MANGANESE ORE (20% OR MORE Mn), FERROMANGANESE,  
 SILICOMANGANESE, AND MANGANESE METAL BY COUNTRIES OF DESTINATION IN FEBRUARY 2005<sup>1</sup>

(Metric tons, gross weight)

	Manganese ore		Ferromanganese, 2% or less C		Silicomanganese		Manganese metal <sup>2</sup>	
	February	Year to date	February	Year to date	February	Year to date	February	Year to date
Australia	--	--	--	--	--	--	1	3
Belgium	--	--	--	--	--	--	32	80
Canada	183	393	716	1,330	6	25	94	134
Chile	--	--	1	1	--	--	--	--
China	33	110	--	--	--	--	--	--
Colombia	6	6	--	--	--	--	--	--
France	--	--	--	--	--	60	--	--
Germany	--	19	--	--	--	--	(3)	17
Hong Kong	--	--	--	--	--	--	1	1
Japan	--	--	--	--	--	--	36	61
Korea, Republic of	--	--	--	--	--	--	3	3
Mexico	--	--	56	292	219	227	32	88
Netherlands	--	--	--	--	--	20	--	--
Sweden	--	19	--	--	--	--	31	31
Total	222	547	773	1,620	225	332	230	418

-- Zero.

<sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>2</sup>Includes manganese-aluminum, some other alloys, and waste and scrap.

<sup>3</sup>Less than 1/2 unit.

Note: Exports of ferromanganese with more than 2% carbon totaled 226 tons, of which 163 tons went to Canada and 64 tons went to Mexico, to give a year-to-date total of 258 tons.

Source: U.S. Census Bureau.

TABLE 8  
U.S. FOREIGN TRADE IN SELECTED MANGANESE CHEMICALS IN FEBRUARY 2005, BY CLASS<sup>1</sup>

Class	Gross weight (metric tons)	Value <sup>2</sup> (thousands)	Principal sources and destinations: gross weight (metric tons); value <sup>2</sup> (thousands)	Year to date		Principal sources and destinations: gross weight (metric tons); value <sup>2</sup> (thousands)
				Gross weight (metric tons)	Value <sup>2</sup> (thousands)	
<b>Imports for consumption:</b>						
Manganese oxides other than dioxide	571	\$346	Mexico 307; \$115	1,220	\$525	Mexico 533; \$206
Manganites, manganates, and other permanganates	--	--	--	--	--	--
Potassium permanganate	91	181	Czech Republic 55; \$110	191	379	Czech Republic 101; \$201
Sodium permanganate <sup>3</sup>	--	--	--	--	--	--
Sulfates, basket category, including manganese sulfate	2,520	1,760	Mexico 1,730; \$986	8,970	5,160	Mexico 5,370; \$2,740
<b>Exports:</b>						
Manganese dioxide	407	281	Canada 289; \$146	749	562	Canada 512; \$247
Manganese oxides other than dioxide	884	618	Canada 594; \$205	1,540	1,030	Canada 1,020; \$389
Manganites, manganates, and other permanganates	--	--	--	16	40	Japan 15; \$37
Potassium permanganate	302	508	Spain 197; \$330	586	961	Spain 390; \$655
Sodium permanganate <sup>3</sup>	51	198	Japan 44; \$158	51	198	Japan 44; \$158
Sulfates, basket category, including manganese sulfate	2,190	1,540	Canada 1,670; \$794	3,830	2,790	Canada 3,090; \$1,410

-- Zero.

<sup>1</sup>Data are rounded to no more than three significant digits.

<sup>2</sup>For imports, Customs value; for exports, free alongside ship value.

<sup>3</sup>In December 2004, the U.S. Harmonized Tariff Schedule was changed for manganites, manganates and permanganates to implement the United States-Australia Free Trade Agreement. Starting in 2005, sodium permanganate is tracked separately from the "manganites, manganates, and other permanganates" trade category.

Source: U.S. Census Bureau.